REMARKS

Claims 1 and 22 have been amended to correct grammatical errors. No new matter is presented in these amendments. Claims 1, 15, 16, and 18-33 are pending and under examination. The Examiner has indicated that claims 23-33 contain allowable subject matter, but have been rejected as described below.

Obviousness-Type Double Patenting

Claims 1, 15-16, and 18-33 have been rejected on the grounds of non-statutory, obviousness-type double patenting as being allegedly unpatentable over claims 1-16 of U.S. 7,045,286; over claims 1-2, 4, and 12-18 of U.S. 7,361,464 (formerly U.S. Serial No: 10/856,057); and claims 1-4 of U.S. 7,341,831 (formerly U.S. Serial No: 10/333,542). As the claims remained rejected on other grounds, Applicants respectfully submit that a terminal disclaimer is not required at this time. Once the office indicates that claims are in condition for allowance, Applicants will file the appropriate terminal disclaimer.

Rejection under 35 U.S.C. § 112

Claims 1, 15-16, and 18-33 have been rejected for allegedly failing to comply with the written description requirement under 35 U.S.C. § 112, 1st paragraph. The Examiner has asserted that these claims allegedly contain new matter, because the application as filed allegedly did not contain support for "unlabeled" RNA product. Applicants respectfully disagree.

The application discloses RNA amplification using unlabeled ribonucleotides at page 11, lines 24-33:

> A variety of means are available for detection of amplified products [*e.g.*, RNA product] of the epitope detector. In one embodiment, the nucleic acid sequence is detectably labeled such as with a radioactive label or a fluorescent label. *In a preferred embodiment, the nucleic acid sequence is not labeled but rather is stained by fluorescent dye.*

Applicants identified the italicized language in their response to the office action dated September 21, 2006, as supporting the amendment to add "unlabeled" to the claims. *See*, Response filed March 21, 2007, at 6. Describing a nucleic acid as "not labeled" is

synonymous "unlabeled." *See*, *e.g.*, MPEP 2163.02 (noting that the disclosure need not describe the claimed subject matter literally, or *in haec verba*). Accordingly the specification supports "unlabeled" RNA product, and the rejection should be withdrawn.

Rejection under 35 U.S.C. § 103

Claims 1, 15-16, and 18-33 are rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over U.S. 5,888,729 ("Kacian") in view of U.S. 5,922,553 ("Eberwine"), WO 94/26932 ("Fields"), and U.S. 5,627,027 ("Waggoner"). As set forth in Applicants' response filed September 10, 2007, the cited references do not teach or suggest the claimed subject matter. Before reiterating these points, Applicants address the Examiner's interpretation of "stain" and "label" in the claims.

The Examiner has recognized that the Applicants argued in their prior response that staining RNA and labeling RNA are different. The Examiner, however, has interpreted "stain" and "label" as having the same meaning, because the terms are "not defined in the specification." Office Action of Jan. 30, 2008, at 8. Respectfully, the Examiner's interpretation is wrong. The doctrine of claim differentiation teaches that different words in a claim in the same application are presumed to have different meanings. *E.g.*, *Innova/Pure Water, Inc. v. Safari Water Filtration Systems, Inc.*, 381 F.3d 1111, 1119-20 (Fed. Cir. 2004) ("when an applicant uses different terms in a claim it is permissible to infer that he intended his choice of different terms to reflect a differentiation in the meaning of those terms." (citations omitted)). By applying the same meaning to the terms "stain" and "label," this doctrine has been violated. Thus, the Examiner's equivalent definitions of "stain" and "label" must be withdrawn. Instead, "stain" and "label" must be interpreted under the rules of patent law.

Numerous court decisions hold that claim terms must be given their "accustomed" or "ordinary" meaning as understood by one skilled in the art. *E.g.*, *Phillips v. AWH Corp.*, 415 F.3d 1303, 1313 (Fed. Cir. 2005) (*en banc*). Express definitions are only required where an inventor intends that a term depart from the accustomed and ordinary meaning to those skilled in the art. *Id.*, at 1316. In the present application, Applicants intend that "stain" and "label," as well as their antonyms, have their ordinary and customary meaning, which is reflected in the present application and the art cited by the Examiner. The definitions of

"stain" and "label," however, are not dispositive to the pending rejection. As discussed below, art cited by the Examiner fails to support a *prima facie* case of obviousness.

Applicants agree that Kacian discloses a way to detect amplified RNA from a RNA promoter-driven target oligonucleotide. Further, Applicants agree that Kacian does not disclose using an oligonucleotide linked to an antibody or fragment thereof. Applicants point out that Kacian describes detecting amplified RNA with *labeled* probes and measuring the amount of *labeled* probe that binds to the unlabeled amplified RNA. Col. 1, l. 52 to col. 2, line 3; col. 11, l. 35 to col. 14, l. 41 (Examples 1-8);col. 15, l. 11 to col. 16, l. 42 (Examples 10-12). Kacian does not teach or suggest (a) using *unlabeled* probes and (b) *staining* techniques to detect *unlabeled* amplified RNA .

Combining the teaching of Kacian with Eberwine does not cure the gaps in Kacian. Applicants agree that Eberwine discloses *labeled* amplified RNA and *unlabeled* probes that are conjugated to antibodies or portions thereof. Combining the teaching of Eberwine with Kacian would result in using unlabeled probes to detect *labeled* amplified RNA. The claims are directed to detecting *unlabeled* amplified RNA. Moreover, like Kacian, Eberwine like does not teach any staining techniques to detect unlabeled amplified RNA. Accordingly, the combination of Kacian and Eberwine does not teach of suggest: (a) detecting unlabeled amplified RNA and (b) *staining* techniques to detect *unlabeled* amplified RNA.

Further addition of the teaching in Waggoner does not cure the gaps in Kacian and Eberwine. Applicants agree that Waggoner discloses cyanine dyes that can be used as labels to detect, among other things, RNA. The Examiner cites the passage in Waggoner that describes using cyanine dyes for labeling RNA probes — "luminescent cyanine and related dyes can be attached to fragments of DNA or RNA. The labeled fragments of DNA or RNA can be used as fluorescent hydridization probes to identify the presence and quantity of specific complementary nucleotide sequences in samples of DNA or RNA." Waggoner, col. 8, l. 51-56. Thus, Waggoner teaches using cyanine dye-*labeled* RNA as probes to detect RNA, but does not teach or suggest using the dyes to directly stain *unlabeled* amplified RNA.

Finally, the addition of the teaching in Fields does not cure the gaps in Kacian, Eberwine, and Waggoner. Fields does not teach or suggest staining with dyes, using a dye to stain unlabeled amplified RNA, or quantitative methods of detecting dye staining.

The Examiner has failed to show that the cited art teaches or suggests all the elements of the claims. Thus, a *prima facie* case of obviousness has not be made and the rejection should be withdrawn.

Conclusion

The Applicants believe that the claims are in condition for allowance and request early and favorable consideration. If the examiner believes that a telephone conversation would further the prosecution of this case, she is invited to telephone the undersigned at her convenience.

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